AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior listings and versions:

66. (currently amended): ~~A polynucleotide, wherein the polynucleotide is a member of a~~ A library comprising a plurality of polynucleotides, ~~the members of~~ each polynucleotide of the library comprising a vector and an insert, wherein each of the insert sequences consist essentially of accessible regions of cellular chromatin, wherein the library is obtained according to the method of:

(a) contacting cellular chromatin with a probe, wherein reaction of the probe with cellular chromatin results in polynucleotide cleavage at accessible regions of cellular chromatin;

(b) deproteinizing the cleaved chromatin of step (a);

(c) digesting the deproteinized chromatin of step (b) with a nuclease to generate a collection of polynucleotide fragments; and

(d) selectively cloning polynucleotide fragments comprising one end generated by probe cleavage.

67. (currently amended): A library ~~comprising a plurality of polynucleotides~~ according to claim 66, wherein each insert sequence consists of an accessible region of cellular chromatin.

68. (currently amended): The library of claim 66 ~~67~~, wherein the cellular chromatin is obtained from cells at a particular stage of development.

69. (currently amended): The library of claim 66 ~~67~~, wherein the cellular chromatin is obtained from cells of a particular tissue.

70. (currently amended): The library of claim 66 ~~67~~, wherein the cellular chromatin is obtained from diseased cells.

71. (currently amended): The library of claim 66 ~~67~~, wherein the cellular chromatin is obtained from infected cells.

125. (previously presented): The polynucleotide of claim 66, wherein, in step (a), the probe is a nuclease.

126. (previously presented): The polynucleotide of claim 125, wherein the nuclease is a restriction enzyme.

127. (previously presented): The polynucleotide of claim 126, wherein the probe comprises a plurality of restriction enzymes.

128. (previously presented): The polynucleotide of claim 66, wherein, in step (c), the nuclease is a restriction enzyme.